The weevil is carried well toward the wasp's head during flight. The Peckhams state that the prey is held in the mandibles but I have never been able to get close enough to a flying wasp to verify this. The weevil is held by the mandibles alone when the wasp is on the ground.

I have recorded four species of weevils—*Sitona hispidula, Gymnetron antirrhini, Gymnetron* species and *Hyperodes dolumbis* as prey of *nigrescens* but apparently an individual wasp uses only one of these species in all her provisioning. Mr. John G. Franclemont has taken one of these wasps at Chafee, New York (September 13, 1935) carrying a *Sitona hispidula*. In all probability *nigrescens* stocks her nests with this clover-root curculio over a large portion of its range and must be an important secondary factor in the control of the beetle since at least a dozen weevils would be necessary to bring one wasp larva to maturity.

In my previous paper I indicated that *nigrescens* is a colonial species. This contention was borne out by my observations this year. After two years the wasps were still nesting in the identical area and the population had not increased appreciably. A spirit of toleration pervades the colony and there is no stealing of prey from the rightful owners such as has been recorded for various species of *Bembix* which also live in communities.

An Annotated List of The Butterflies of Nebraska, with the Description of a New Species. (Lepid.: Rhopalocera).

By R. A. Leussler, Omaha, Nebraska.

As no list of Nebraska butterflies has been published for more than 40 years (H. G. Barber's list in the 1893 Proceedings of the Nebraska Academy of Science) and as many additional species have since been taken in the state, and more definite records are at hand in the case of others, there appears to be ample justification for a list at this time.

The writer has collected butterflies in Nebraska for 28 years, keeping careful field notes during the active season and com-

piling them at the end of each season. Others who have collected in the state during this time and the result of whose collecting has contributed to the data contained herein, are:

Dr. Robt. H. Wolcott, who greatly assisted the writer at all times, and who but for his death in 1934 would have joined in the authorship of this list; Frank H. Marshall, Frank H. Shoemaker, Dr. R. W. Dawson, C. E. Mickel, and L. M. Gates.

Earlier collectors who have added material of their collecting to the collection of the University of Nebraska are: Prof. Lawrence Bruner, Merritt Cary, and J. C. Crawford.

Professor Myron H. Swenk, head of the Department of Entomology, University of Nebraska, generously granted access to the University collection as well as to the library of the department, making possible examination and study of a large number of specimens collected in the state.

The present list includes 159 species. Although this is a rather large number of species to record from one state I feel confident that many more species are to be found in Nebraska, and that when the state has been more fully covered a number of species which have not hitherto been credited to the state will be added to the list.

This rather extensive butterfly fauna is to be accounted for by a variety of causes: 1). Geographical location, being midway between the East and West, and also between the North and South. 2). Extensive area. Nebraska covers some 400 miles east and west, and 200 miles north and south. 3). Range of altitudes, varying from less than 1000 feet along the Missouri river to approximately 5000 feet in Banner county adjacent to the Wyoming line. 4). Diversity in the character of country, there being woodland, prairie, sandhills, plains, pine woodland and rocky canyons. 5). Proximity of the Rocky Mountains, accounting for the presence of mountain forms in the western part, as gaps in mountains permit these forms to find their way through.

Only such species are included in the list as have been collected within the state by the writer or by others where the specimens have actually been examined by him.

The classification followed is that of Barnes & Benjamin's Check List of 1926.

Where not otherwise noted the records refer to captures by the writer.

Hesperia pahaska n. sp.

On the high plains of the canyon region in Sioux County, Nebr., there flies a skipper which has passed under various names but which differs from all the named forms. An examination of the genitalia indicates that it is distinct. I propose for it the name *pahaska,* the name the Sioux Indians bestowed upon Col. Wm. F. Cody (Buffalo Bill), who killed Chief Yellow Hand in single combat in War Bonnet Canyon, upon the rim of which this skipper flies. "Pahaska" in the Sioux language means "White Chief".

Male, upper side: Primaries, a somewhat faded or washed-out-looking fulvous, broad dark border on outer margin not very clearly defined; fulvous apical spots within the border rather pale; stigma curved and fairly heavy, scales beneath stigma shading it and making it appear heavier than it really is. Secondaries, fuscous with a single pale fulvous spot toward base, and an outer curved row of similar pale fulvous spots. Fringes dirty white. Under side: Primaries paler than above, inner margin very pale; apical spots of upper side reproduced, but in color they are a dirty white. Secondaries, ground color an uncertain shade of yellowish brown, the inner margin, however, broadly yellow; the spot in basal area larger than on upper surface, and somewhat bifid; above this, near costa, a linear light spot; outer row of spots consists of 6 irregular shaped spots fairly separate, the one nearest inner margin projecting inwardly. All spots faintly silvered. Expanse 36 mm.

Female, pattern similar to male but fulvous area greatly restricted; apical spots of primaries whitish. Fringes dirty white. Under side similar to that of the male. Expanse 40 mm.

The above is a description of the ♂ holotype and the ♀ allotype, selected from a series of 7 males and 6 females as being representative examples. The entire series is from the canyon region of Sioux County near the town of Harrison, Nebraska.

♂ *Holotype* July 15, 1917. ♀ *Allotype* July 19, 1917, both in the collection of the writer. 6 ♂ *paratypes,* June 22, 24,

1911. July 17, 18, 19, 22, 1917. 5 ♀ *paratypes*, June 27, 1911. July 16, 19, 19, 22, 1917.

This species is nearest *viridis* Edw. Compared with that species it is duller, more sordid or washed-out-looking, with the spots paler and consequently more contrasting. The fringes also are lighter, and the male stigma is heavier and shaded beneath, as stated in the description. On the under side the primaries are less reddish than in *viridis*, the secondaries darker, and the spot nearest inner margin projects inwardly, whereas in *viridis* this spot lies nearer the outer margin than the spot next to it.

R. C. Williams, who made a slide of the genitalia in 1923, wrote that while the maculation is like *viridis*, the male genitalia is different from that species, and added: "it seems to me you either have a good species or a valid form to describe."

1. PAPILIO PHILENOR L. Rare. Has been taken at Omaha, Lincoln and Roca. Larvae have been found on Dutchman's pipe vine (*Aristolochia sipho*) in June and in August, and reared to maturity, the butterflies emerging in July, October and in May of the year following pupation.

2. P. AJAX L. (ASTERIUS Cram.). Apparently found over the entire state. Common at Omaha and Lincoln. First brood May and June; second brood from the middle of July to first part of September.

P. AJAX form CURVIFASCIA Skin. A number of overwintering chrysalids, produced by larvae found on parsley at Omaha, gave forth imagoes of this form, while others gave forth imagoes of the typical form.

P. AJAX form AMPLIATA Men. Out of a large number of *ajax* larvae reared at Omaha there was obtained 1 male and 1 female of *ampliata*.

P. AJAX ab. ALUNATA Skin. & Aar. One specimen of this aberration in the Nebraska University collection. Taken in Squaw Canyon, Sioux County, July, 1892.

3. P. BAIRDII Edw. Four specimens in the University collection, all collected in Sioux County. July, 1892, June, 1900; July 29, 1913; August 15, 1913.

P. BAIRDII form BRUCEI Edw. Found in the western part of the state, where it appears to be more common than the typical form. Sioux County July, 1892 (Univ. coll.); Haigler Aug. 19, 1909 (Gable); Colfer Aug. 18, 1912 (Shoemaker); Wauneta, July 27, 1923 (Leussler).

4. P. NITRA Edw. Rare. One male Bull canyon, Wild Cat Mtns., near Harrisburg, Banner County, June 2, 1919 (Leussler).

5. P. INDRA Reak. Rare. One specimen from W. Monroe Canyon, Sioux County, May 31, 1900 (Univ. coll.); 1 from Bull Canyon, Harrisburg, Banner County, June 2, 1919 (Leussler).

6. P. CRESPHONTES Cram. Not uncommon in the eastern part of the state and has been taken as far west as Kearney. First brood latter part of May through June; second brood August and September. Larvae in numbers can be found at Omaha on prickly ash in September.

7. P. GLAUCUS L. Black females are found commonly in the eastern part of the state during May and June, and again during July and August. Observed and collected at Omaha every year.

P. GLAUCUS form TURNUS L. The commonest *Papilio* in the eastern part of the state. First brood early May; second about the middle of July. Some individuals of the early brood closely resemble race *canadensis* R. & J., in having the yellow submarginal spots on under side of primaries united into a band and in being considerably smaller than individuals of the later brood.

8. P. MULTICAUDATA Kirby. Abundant in the western part of the state, especially in Sioux County where it is the common *Papilio*. Specimens of both sexes taken there in the latter part of June were already more or less worn, suggesting that the species makes its appearance in late May or early June. Specimens also collected at Valentine June 9, 1914, and one was taken a few miles south of Omaha May 1, 1910, by Dr. Wolcott. Apparently double brooded as the University collection contains a specimen taken in Sioux County July 20, 1892.

9. P. TROILUS L. A single specimen taken near Omaha April 27, 1913; it had the appearance of having travelled a long distance, as its wings were badly mutilated although the colors were fresh.

10. P. PALAMEDES Dru. Rarely visits Nebraska. One individual observed at Omaha (Leussler); one taken in Dodge County by the late E. A. Dodge and now in the writer's collection. Barber's list credits it also to Lincoln.

11. P. MARCELLUS Cram. form TELAMONIDES F. & F. Rare. One specimen, near Omaha, April 3, 1910.

P. MARCELLUS form aest. LECONTEI R. & J. Rare. Observed occasionally at Omaha during late June and July (Leussler) and at Lincoln (Wolcott). One specimen in University collection bearing Rulo locality label, no date. Rulo is in the extreme southeastern corner of the state, and as papaw, the food plant, is known to occur in that part of the state it is likely that this butterfly is not uncommon thereabouts.

12. PARNASSIUS SMINTHEUS Dbldy & Hew., race SAYII Edw. Common in the northwestern part of the state. Long series have been collected on the ridges and canyon slopes in Sioux County, about 8 miles northwest of the town of Harrison. Much variation in the number and size of red spots is noted. Most of the males have a submarginal row of black crescent-shaped spots on secondaries, heavy and distinct in some, and but faintly indicated in others. In some specimens the red spots are replaced by spots of an orange tint, varying in degree from slight to very pronounced.

13. NEOPHASIA MENAPIA (F. & F.). Found in the canyons of Sioux County, where, on the pine-covered slopes it is reported to be common. I have specimens taken there August 14, 1911 (F. H. Shoemaker) and August 18, 1912 (R. W. Dawson).

14. APPIAS ILAIRE (Godt.) race NEUMOEGENII (Skin.). A single tattered specimen, taken at Omaha, August 19, 1909, following ten days of steady southeast wind; clearly a straggler. It is a male and has the stiff brush-like clusters of hair attached to the abdominal claspers, leaving no doubt as to identification.

15. Ascia sisymbrii (Bdv.). Apparently found only in the western part of the state, and not common there. 2 specimens, Sioux County, 1900 (Wolcott).

A. sisymbrii ab. ♀ flava (Edw.). One specimen of this yellowish female, Monroe Canyon, Sioux County, June 5, 1919 (Leussler).

16. A. protodice (Bdv. & Lec.). Common over the entire state, though less so than *rapae*. In the eastern part of the state it is on the wing from May till October.

A. protodice gen. vern. vernalis (Edw.). Less common, but specimens of this form, small in size, lightly marked on upper surface, and with the veins on under side of secondaries heavily fuscous, can be taken at Omaha and Lincoln in late March and April. *Protodice,* taken late in October often shows considerable darkening of veins on under side of secondaries but otherwise is more like the typical form.

17. A. rapae (L.). The spring form, the males of which are sometimes almost immaculate, is fairly common in the eastern part of the state, and probably in other parts as well. April and May.

A. rapae gen. aest. yreka (Reak.). Exceedingly common; found everywhere and at all times during the summer and fall.

18. Nathalis iole Bdv. Very plentiful, sometimes actually swarming at Omaha, and apparently just as common all over the state, for I have taken it at many points in every quarter of the state. Two broods at least, first early July, second early September, continuing on the wing until cold weather. In some females the ground color of secondaries is pure yellow while in others it is decidedly orange.

(To be continued)

A List of Dragonflies taken during the Summer of 1936 in Western United States. (Odonata).

By Carsten Ahrens, McKeesport High School, McKeesport, Pennsylvania.

During the summer of 1936, the writer had the good fortune to be selected as a student in the Yosemite National Park